

## FLRT3 Protein, Human (HEK293, His)

Cat. No.:	HY-P70924
Synonyms:	Leucine-Rich Repeat Transmembrane Protein FLRT3; Fibronectin-Like Domain-Containing Leucine-Rich Transmembrane Protein 3; FLRT3; KIAA1469
Species:	Human
Source:	HEK293
Accession:	Q9NZU0 (K29-P528)
Gene ID:	23767
Molecular Weight:	60-110 kDa

### PROPERTIES

AA Sequence	<div> K S C P S V C R C D    A G F I Y C N D R F    L T S I P T G I P E    D A T T L Y L Q N N  Q I N N A G I P S D    L K N L L K V E R I    Y L Y H N S L D E F    P T N L P K Y V K E  L H L Q E N N I R T    I T Y D S L S K I P    Y L E E L H L D D N    S V S A V S I E E G  A F R D S N Y L R L    L F L S R N H L S T    I P W G L P R T I E    E L R L D D N R I S  T I S S P S L Q G L    T S L K R L V L D G    N L L N N H G L G D    K V F F N L V N L T  E L S L V R N S L T    A A P V N L P G T N    L R K L Y L Q D N H    I N R V P P N A F S  Y L R Q L Y R L D M    S N N N L S N L P Q    G I F D D L D N I T    Q L I L R N N P W Y  C G C K M K W V R D    W L Q S L P V K V N    V R G L M C Q A P E    K V R G M A I K D L  N A E L F D C K D S    G I V S T I Q I T T    A I P N T V Y P A Q    G Q W P A P V T K Q  P D I K N P K L T K    D H Q T T G S P S R    K T I T I T V K S V    T S D T I H I S W K  L A L P M T A L R L    S W L K L G H S P A    F G S I T E T I V T    G E R S E Y L V T A  L E P D S P Y K V C    M V P M E T S N L Y    L F D E T P V C I E    T E T A P L R M Y N  P T T T L N R E Q E    K E P Y K N P N L P </div>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

## Background

FLRT3 protein plays a multifaceted role in cellular processes such as cell-cell adhesion, cell migration, and axon guidance, demonstrating either attractive or repulsive effects contingent on its interaction partners. Crucially involved in the spatial organization of brain neurons, FLRT3 also contributes to vascular development in the retina. Through interaction with ADGRL3 and potentially other latrophilins on adjacent cells, FLRT3 participates in cell-cell adhesion. Its interaction with the intracellular domain of ROBO1 mediates axon attraction towards cells expressing NTN1, while also facilitating axon growth cone collapse and playing a repulsive role in neuron guidance via UNC5B and potentially other UNC-5 family members. FLRT3 promotes neurite outgrowth and mediates cell-cell contacts that enhance both neurite number and length. Additionally, it regulates the density of glutamatergic synapses and is implicated in fibroblast growth factor-mediated signaling cascades. Essential for normal morphogenesis during embryonic development, FLRT3 contributes to processes like ventral closure, headfold fusion, and definitive endoderm migration, as well as the formation and maintenance of a normal basement membrane and anterior visceral endoderm. FLRT3 forms monomers, homodimers, and self-associates through leucine-rich repeats, creating homooligomers. Interactions include those with FGFR1, ADGRL1/LPHN1, LPHN2, ADGRL3, UNC5B, UNC5D, and ROBO1.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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